

REMARKS

Claims 14-27 were examined. The claims have been amended. Claim 15 has been cancelled. No new matter is entered by way of the amendments. Se to the created tree being displayed in graphic form, please see paragraph 67 of the specification.

Applicants' appreciates the interview held between the Examiner and undersigned attorney on August 2, 2010. The claims have been amended in view of the kind suggestions provided by the Examiner during that interview.

Rejections Under 35 USC 101

Claims 14-23 and 27 were rejected under 35 USC 101 as being directed to non-statutory subject matter.

As to claim 14, attention is directed to MPEP 2106.01.

Concern was expressed by the Examiner that claim 14 resulted in a tree structure which defines an ordered relationship in which calculating operations are carried out by the electronic costing system, and whether this was statutory subject matter.

MPEP 2106.01 provides that "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. However, when functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the

function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and *In re Warmerdam*, 33 F.3d 1354, 1360-61, 31 USPQ2d 1754, 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

The MPEP goes on to state that computer programs are often recited as part of a claim. USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material *per se* and hence nonstatutory. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the

computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material. When a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim. ** When a computer program is recited in conjunction with a physical structure, such as a computer memory, USPTO personnel should treat the claim as a product claim. **

Claim 14 has been drafted to satisfy these requirements.

The Official Action refers to recent USPTO guidance of the "Subject Matter Eligibility of Computer Readable Media".

That guidance states that the United States Patent and Trademark Office (USPTO) are obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. The guidance states that the broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent.

The claims have been amended to address the "transitory" issue. Page 3, under Response to Arguments, the Examiner indicates that the wherein clause concerning the

information storing means and the computer being hardware, should be removed to overcome the "hybrid claim" issue.

As suggested by the Examiner, this recitation has been removed.

Attention is also directed to the memorandum from Andrew Hirshfeld dated 24-August-2009, a §101 process must:

(1) be tied to another statutory class (such as a particular machine or machine implemented apparatus), or

(2) transform underlying subject matter (such as an article or materials) to a different state or thing.

If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101, and is therefore non-statutory subject matter. It is noted that, using the broadest reasonable interpretation of the claim, a machine or transformation can be either explicitly or inherently present in the claim, in order to qualify as a § 101 statutory process.

It is only if no machine or transformation is present, either explicitly or inherently, that the claim should be rejected as being directed to non-statutory subject matter, and therefore does not qualify as a statutory process.

In regard to claims 14, 16-23 and 27, claim 14 recites steps executable by a computer to control the computer to function as an electronic editor for a calculation formula for calculating the price of a service, the electronic editor creating said calculation formula in a format directly readable

by an electronic costing system, the electronic costing system establishing, with the aid of said calculation formula, the price of a service using information on the service consumed contained in consumption variables, said computer being controlled to function as the electronic editor by performing the recited steps.

Clearly, the steps being recited inherently requires the use of computer, since the steps recited cannot be performed without the use of a computer.

Thus, the claims recite a process inherently tied to a machine. Furthermore, the claims explicitly recite steps executed "via an interface of the computer"; the computer displaying on a screen in a graphic form the created tree structure during creation or when already created; the computer automatically converting the created tree structure displayed in a graphic form into a format directly readable by the electronic costing system; and the computer storing the converted tree structure in an information storing means.

Accordingly, the requirements under section 101 are satisfied. Withdrawal of this rejection is solicited.

Rejections Under 35 USC 112

I. Claims 14 and 24 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection states that Claim 14 recites "said tree structure being formed by nodes including a root node ... ending ..." and that the Examiner cannot determine what functions (if any) the root node/father node/child node/ending are required to perform amongst each other.

The rejection stated that the Examiner cannot determine whether the root/father/child nodes individually perform a calculation operation and/or whether each is explicitly required by the selecting and connecting steps since the selecting and connecting steps do not discuss which nodes are selected and further do not discuss which nodes are connected to one another.

In response thereto, the relationship between the nodes has been clarified.

Examiner notes the nodes themselves perform some calculating operation and the connected arcs define the order in which the some calculating operations are performed but examiner cannot determine the functionality of the endings.

In response thereto, the function of each type of node has been clarified.

As to claim 24, the rejection stated that the Examiner noted the "electronic calculating unit" limitation requires "executing operations associated with the nodes and the ends of the tree structure." and that there was a lack of antecedent basis for "the nodes."

This has been remedied.

The rejection stated that the Examiner cannot determine which nodes are required to be executed.

Claim 24 recites that the electronic calculating unit is configured for i) receiving information of the consumption variables from the receiver and receiving the tree structure from the storage unit, and ii) executing operations associated with the nodes and the endings of the tree structure, in response to the consumption variables information received from the receiver, so as to pass through the tree structure of the calculation formula from the root node to at least one of the ending nodes by successively executing conditional activation operations of the father nodes, then, solely conditional activation operations associated with activated child nodes until at least one ending node associated with a price-calculating operation has been activated, and to execute the at least one ending to automatically establish the price of the service.

This explains/recites the nodes which will be executed.

The rejection further states that the "electronic calculating unit" is claimed to execute operations associated

with the endings, however it appears only the nodes are associated with operations.

This has been remedied to clarify the operations performed at the ending nodes.

Based on these amendments, each basis for rejection has been remedied.

II. Claims 15-23 and 27 were rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph. The claim(s) are narrative in form and replete with indefinite and functional or operational language.

As to claims 16-23, the rejection states that the claims recite the user performing the steps of selecting and connecting. Examiner cannot determine how the claimed recording medium causes a computer to have a user select and connect nodes.

The functioning of the computer, in response to actions of the user, has been clarified.

The rejection states that as to claim 27, the claim recites "wherein the formula for calculating the price includes conditional calculating rules having a form ... " The entirety of claim 27 does not make logical sense as depending from claim 14.

Claim 27 has been amended to clarify this feature.

See application paragraph [0061] which discloses that "The decision node is associated with a conditional activation operation of all the child nodes or daughter endings connected

thereto. The activation of the child nodes is only carried out if an activation condition is satisfied. This activation condition is formed by one or more variables in the costing context connected to one another by a logical function of which the result is 'True' or 'False'. The parameters of this conditional activation operation are therefore the name or names of the variables and the logical function. The logical function is typically carried out with the aid of boolean operators."

In view of the above amendments, all of the noted issues have been remedied by amendment.

Rejections Under 35 USC 103

Claims 14-20 and 22-27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Baer et al. (US 5,414,836) in view of Shaver et al. (US 2003/0158784).

Claim 21 was rejected under 35 U.S.C. 103(a) as being unpatentable over Baer et al. (US 5,414,836) in view of Shaver et al. (US 2003/0158784), and further in view of Bera (US 6,636,880).

Applicant respectfully disagrees.

Claims 14, 24, and 25 are independent.

Baer '836 discloses a processing system for generating test cases to test software, where each test case is implemented through a graphical user interface (column 2, lines 57-60).

More precisely, Baer discloses a processing system that includes a library of node types including AND, OR, Decision and Content nodes, node linking-data and graphical user procedure (column 3, lines 4-8).

An AND node places information into a test case via all linked child nodes, in the order assigned to the links that connect to the child nodes.

An OR node places information into a test case via one and only one child node, based upon an assigned probability value to the link which connects the child node to the OR node.

A Content node is a node which places actual texts or numbers into the test case and is the only node which enters data.

A Decision node directs traversal of the tree structure, the direction of traversal being dependent upon the fulfillment of a condition that is defined within the Decision node (column 4, line 60 - column 5, line 11).

The applicant submits that Baer does not describe or suggest an electronic editor that enables a user to build a price calculation formula in a format directly readable by an electronic costing system.

Rather, Baer only builds test cases for testing software. More precisely, Baer teaches how to build a test case that provides random values as input to the software under test.

In fact, it is not possible to build a price calculation formula from the Baer's processing system because, as acknowledge by the Examiner.

The Examiner acknowledges that:

-The nodes are not associated with a calculation operation executable by an electronic costing system. In fact, the Baer's tree structure does not define a formula to establish the price of a service. In addition, the Baer's tree structure is only executable by the processing system itself and not by any electronic costing system.

-The processing system does not automatically convert the created tree structure into a format directly readable by the electronic costing system, and

-Content nodes, which are the only nodes to enter data, only enable to define a set of values within which a specific value is randomly picked. Thus, if Baer's processing system was used to define a price calculation formula, the calculated price will be a random number. A processing system which is only able to output a random number is not suitable to be used as an electronic editor for a calculation formula for calculating the price of a service (column 7, lines 47-50 and column 8, lines 11-18).

Baer does not disclose or suggest an electronic costing system having a receiver (e.g., as recited in claim 24) storing

consumption variables containing information on consumption of service.

Furthermore, Baer lacks any suggestion that this reference should be modified in a manner to meet the claims. In fact, Baer's reference is from a different field (software testing) than the one of the invention (price editor).

Shaver deals with pricing trees of complex products. However, Shaver's pricing tree is just a set of rules recorded in a database (\$44). A pricing tree sample is shown at bottom half of Figure 4 (\$57). It appears as a table and not as a tree structure. Thus Shaver does not disclose the computer generation recited as being associated with:

- selecting node from a node library of pre-stored nodes stored in the computer, each node being associated with a calculating operation to establish the price of the service,

- displaying on a screen in a graphic form the created tree structure during acquisition or when already acquired,

- connecting the selected nodes to one another by arcs, the arcs defining, by an ordered relationship, an order in which said calculating operations are carried out,

- automatically converting the created tree structure displayed in a graphic form into a format directly readable by the electronic costing system.

Furthermore, Shaver uses "priority level" to order the application of individual taxes (\$47) and price adjustments (\$50).

Thus, Shaver teaches away from a solution in which the user connects nodes by arcs to order price calculating operations.

Furthermore, Shaver lacks any suggestion that this reference should be modified in a manner to meet the claims. Shaver also does not contain any suggestion to be combined with a in system such as disclosed in Baer '836.

Bera '880 deals with automatic conversion of units (like kilograms, ...) in a computer program (column 1, lines 45-46). Bera '880 does not disclose:

- a library of pre-stored nodes,
- displaying in a graphic form created tree structures,
- connecting the selected nodes to one another by arcs,

the arcs defining, by an ordered relationship, an order in which calculation operations are carried out by an electronic costing system,

- a computer automatically converting a created tree structure into format directly readable by an electronic costing system.

Bera '880 also lacks lacks any suggestion that this reference should be modified in a manner to meet the claims.

Thus, each of the independent claims is believed to be non-obvious.

The dependent claims are believed allowable at least for depending from an allowable independent claim.

Therefore, reconsideration and allowance of all the claims are respectfully requested.

This response is believed to be fully responsive and to put the case in condition for allowance. Entry of the amendment; and an early and favorable action on the merits is earnestly requested. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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